



DOCUMENTS SECTION

Mare Island, Vallejo, California

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From: Officer in Charge Artificial Limb Department
To: Commanding Officer

Subj: Monthly report on the experimental work of the Artificial
Limb Department *much*

Ref: (a) Advisory Committee on Artificial Limbs ltr of 21 June 1949
(b) Research Division ltr of 24 June 1949, BUMED CODE 71/DJD:gh

1. Monthly report required by references (a) and (b) is hereby submitted.
2. The following projects are under production, experimentation and further study: (NM 007 084.)

(a) Lower Extremities Section:

I. Foot and ankle (NM 007 084.30)

A new type rubber block has been manufactured for the ankle. It has a 55 and 35 durometer rubber molded together, according to preliminary curves. This type of block will give more resistance to dorsiflexion and will have a very small change in resistance to transverse rotation. One above knee amputee is being fitted with this ankle block and it is contemplated on setting up six others in the near future.

II. Shank (NM 007 084.10)

Molds are now being completed for two additional sizes of plastic shins.

III. Knee

(A) Mechanical variable cadence knee joint (NM 007 084.32)

Life tests are continuing on various braking materials. Three variable cadence units are being shipped to New York University for field testing.

IV. Cosmetic Problem (NM 007 084.20)

The cosmetic covering for female amputees is proving very successful. However, we are searching for a plastic material which will be more durable than the latex now used.

V. Brief summary of models as a unit .

(A) Soft socket (NM 007 084.16)

Additional cases are being fitted with plastic liners. The majority of reports from pilot wearers indicate that this type of liner has many advantages over the leather.

(B) Suction socket

No new developments on this problem this month.

(b) Upper Extremities Section:

I. The above elbow arm lock for the Navy-Fitch arm has proven successful during amputee testing. The arm is now back in the laboratory for simplification of parts and additional models will be built for service testing.

II. Hands, hooks and tools (NM 007 084.18)

Additional cases are being fitted with the Robinson hand.

III. Cosmetic problem

No new work has been done on this problem this month.

IV. Harness and/or other outside control (NM 007 084.21)

No new work on this problem.

V. Brief summary of status of models as a unit.

The below elbow amputee with a biceps tunnel is using his prosthesis in a satisfactory manner.

The bilateral above elbow amputee with pectoral cineplastic motors has been successfully fitted with new arms which have turntables above the elbow. He is using these arms with a higher degree of function as compared with his original cineplastic arms.

T. J. CANTY
CDR, MC, USN